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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/747,868 | 12/29/2003 | Richard John Newson | 0074-497816 | 2831 |
| 110 7590 12/17/2007 DANN, DORFMAN, HERRELL & SKILLMAN 1601 MARKET STREET SUITE 2400 PHILADELPHIA, PA 19103-2307 | | | EXAMINER ROBERTS, LEZAH | |
| | | | ART UNIT 1614 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/747,868

Applicant(s)

NEWSON, RICHARD JOHN

Examiner

Lezah W. Roberts

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on September 21, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 13, 23 and 37-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-22 and 24-36 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 16 June 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Election of Species

Applicant's election without traverse of weeds for substance to kill, herbicide for the liquid substance and user for the applicator in the reply filed on September 21, 2007 is acknowledged.

Claims 13, 23 and 37-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 21, 2007.

Claims

Claim Objections

Claim 24 is objected to because of the following informalities: the term "on" is should read "or". Appropriate correction is required.

Claim Rejections - 35 USC § 112 - Indefiniteness

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. The claims recite the limitation "at a rate of between 5 and 50 litres per hectare of surface area" and "at a rate of between 10 and 30 litres per hectare of surface area", respectively. The term rate is a degree of a unit per time but the claims recite a unit per area. The claims are indefinite because liters per hectare is not a "rate" it is an area.

Claim Rejections - 35 USC § 102 - Anticipation

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1) Claims 1-4, 6, 8, 14, 20-21, 24, 25-27, 29 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson (US 5,297,730).

Thompson discloses an apparatus and method for controlling weeds and undergrowth. The method includes heating up a fluid to a temperature between 100°F to 240°F. The liquids to be sprayed by the apparatus include water, herbicides, oils, surfactants, insecticides, fertilizers and mixtures thereof (see claims). In regards to exposing the weeds to steam as in claim 27, when the temperature is above 212°F, the water will start to evaporate and therefore steam will be present. The reference anticipates the instant claims insofar as it discloses a method for killing weeds using heat and a liquid component.

2) Claims 1, 3, 5, 8, 18, 21-22, 24, 26, 28 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Prull (US 2001/0000554).

Prull discloses a method and apparatus for thermally killing weeds. The apparatus may be configured for either manual or self-contained motorized movement, or towing behind a motorized vehicle (paragraph 0018). The weeds are sprayed with water followed by the application of heat. The apparatus generates infrared radiation for the heat source. A secondary water sprayer may be added to the apparatus to extinguish any weed fires that might be started (paragraphs 0028-0032). In regards to the herbicide, herbicide is defined as a chemical substance used to destroy or inhibit the growth of plants, especially weeds (American Heritage Dictionary). In the instant case, water is used in conjunction with heat to kill weeds. Water is a chemical and therefore may be considered a liquid herbicide. The reference anticipates the instant claims insofar as it discloses a method for killing weeds using heat and a liquid component.

3) Claims 1-4, 6-8, 16-22, 24-27, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Adey et al. (US 5,946,851).

Adey et al. disclose a method for killing weeds using hot air. The temperature for killing the weeds ranges from 100°C to 900°C (col. 2, lines 19-22). The hot air is added to the weeds followed immediately by the water to inhibit burning or flaming of the weeds foliage. Alternatively the heated water may be added to the foliage followed by heating with water. Following heating, a residual heat mass is present on the foliage. The hot water spray/air mixture may also contain steam if the water becomes heated

sufficiently. A saline solution may be added to the water, steam or moisture. The rate of decay of the dead weeds over days or weeks subsequently may also be increased relative to hot air alone. The flow rate is at least 600 liters/minute. When using hoses, the rate for water is less than 1 liter/minute in a hot air stream of 100 liters/minute. The apparatus used by the operator is easier and more convenient to move about (col. 1, line 60 to col. 2, line 35). As discussed above in subsection 2, water may be considered a liquid herbicide, particularly when the water comprises a saline solution that increases the rate of decay of the weeds. The reference anticipates the instant claims insofar as it discloses a method for killing weeds using heat and a liquid component.

Claim Rejections - 35 USC § 103 - Obviousness

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1) Claims 15 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US 5,297,730) in view of Bartlett et al. (US 2,867,519).

Thompson is discussed above in the Anticipation section. The reference differs from the instant claims insofar as it does not disclose the type of herbicide that may be used in the weed killing method.

Bartlett et al. disclose herbicidal grease compositions comprising a lithium soap of a hydrogenated fish oil fatty acid salt (see claim 6). The compositions are non-volatile, long-persistent floricial compositions (col. 2, lines 8-10). The compositions are highly resistant to rain water and the like and do not melt easily in the sun (col. 4, lines 4-5). The reference differs from the instant claims insofar as it does not disclose using the herbicidal grease in conjunction with heat.

It would have been obvious to one of ordinary skill in the art to have used the herbicidal compositions in the method of the primary reference motivated by the desire to use a herbicide that is non-volatile and highly resistant to water, therefore the compositions are durable in the sunlight and are not easily washed away by rain, as disclosed by the secondary reference.

2) Claims 9-12 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US 5,297,730) in view of Innes (US 6,759,370).

Thompson is discussed above in the Anticipation section. The reference differs from the instant claims insofar as it does not disclose the type of herbicide that may be used in the weed killing method.

Innes discloses an herbicide which may also be used for as pesticides and fungicides. The compositions comprise a monerpene compound with a fatty acid soap (col. 3, lines 38-40). Optional components include surfactants, foaming agents, emulsifiers and pesticides (col. 4, lines 20-24). The compositions are compositions for horticulture and agriculture which are based primarily on naturally occurring or derived substances and which are active in their preferred area of application without the need of compounds and substances which are generally regarded as being synthetic or non-organic (col. 1, lines 30-50). This addresses the problem of using chemicals in agriculture. The reference differs from the instant claims insofar as it does not disclose the compositions are used in conjunction with heat.

It would have been obvious to one of ordinary skill in the art to have used the herbicide comprising monerpene as the herbicide used in the method of the primary reference to kill weeds motivated by the desire to use an herbicide that comprises natural components as opposed to synthetic or non-organic components, which would address the problems associated with using chemicals in agriculture as disclosed by the secondary reference.

3) Claims 9-12 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adey et al. (US 5,946,851) in view of Innes (US 6,759,370).

Thompson is discussed above in the Anticipation section. The reference differs from the instant claims insofar as it does not disclose using an herbicide the disclosed weed killing method.

Innes is discussed above. The reference differs from the instant claims insofar as it does not disclose the compositions are used in conjunction with heat.

Generally, it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in the prior art. In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069,1072 (CCPA 1980); In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). It would have been obvious to one of ordinary skill in the art to have used the heating method of the primary reference with the herbicide of the secondary reference motivated by the desire to use two methods disclosed by the art to achieve the same goal of killing weeds and to more effectively kill weeds by using two different types of treatments, as supported by cited precedent.

Claims 1-12, 14-22 and 24-36 are rejected.

Claims 13, 21 and 37-41 are withdrawn.

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lezah W. Roberts whose telephone number is 571-272-1071. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on 571-272-0718. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lezah Roberts
Patent Examiner
Art Unit 1614



Frederick Krass
Primary Examiner
Art Unit 1614

